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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,470	09/28/2001	Phillip McGee	114293-3000	1756

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EXAMINER	
WALLING, MEAGAN S	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,470	MCGEE ET AL.	
	Examiner	Art Unit	
	Meagan S. Walling	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12-24* is/are allowed.

6)☒ Claim(s) *1-3,5-8,10,11 and 25* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 5 and 10 are objected to because of the following informalities:

Claim 5 recites the limitation "angle indicator" in claim 1. There is insufficient antecedent basis for this limitation in the claim. Furthermore, claim 5 should read "the angle indicator is a sound-generating device" instead of "the angle indicator and a sound-generating device".

Claim 10 recites the limitation "the data" in claim 25. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10, 11, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Neuhaus (US 4, 589, 289).

Regarding claim 25, Neuhaus teaches means for enclosing (1) configured to be located between a tool (2) and a fastener (column 4, lines 36-38) such that the means for enclosing is directly connected to an end of the tool and directly to the fastener (see Fig. 1); means for applying torque to the fastener, the means for applying torque is located within the means for

enclosing (see abstract); means for measuring the angle of rotation of the fastener from the fixed reference point, the means for measuring located within the means for enclosing (37); means for displaying the current angle of rotation, the means for displaying located apart from and linked to the means for applying (column 7, lines 29-32).

Regarding claim 10, Neuhaus teaches that the means for measuring comprises means for selecting a desired angle of rotation (column 2, line 43), means for calculating the angle of rotation from the data (column 2, line 39), means for indicating a zero point from which the means for calculating basis the angle measurement (61), and means for indicating the current angle as determined by the means for calculating (37).

Regarding claim 11, Neuhaus teaches that the means for applying torque to a fastener comprise a shaft (3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus (US 4,589,289) in view of Tambini (6,609,407).

Regarding claim 1, Neuhaus teaches an apparatus that measures the angle of rotation applied to a fastener by a tool beyond a specific reference point, the apparatus comprises a housing (1) that includes a shaft (44) and an angle rate sensor (37), the housing is configured to

be position between the tool (3) and a and a fastener (column 4, lines 36-38) such that a first end of the shaft (44) is directly connected to an end of the tool (3) and a second end of the shaft is directly connected to the fastener (column 4, lines 36-38), the shaft is linked to the angle rate sensor (37).

Regarding claim 2, Neuhaus teaches an angle selector adjustable to a desired angle (15); a processor that calculates a current angle of rotation from the rate sensor measurements (37); and a zero point indicator that sets a zero point for the processor to calculate the selected angle (column 5, lines 41-42).

Regarding claim 3, Neuhaus teaches that the zero point is the reference point for the processor to calculate a selected angle (column 5, lines 30-33).

Regarding claim 5, Neuhaus teaches that the angle indicator is a sound-generating device that activates when the selected angle of rotation has been reached (column 2, lines 1-4).

Neuhaus does not teach that the angle indicator is a multimeter.

Tambini teaches using a multimeter as a readout of an angle potentiometer (column 2, lines 50-51).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Neuhaus with Tambini to use a multimeter as an angle indicator. The motivation for making this combination would be to accurately display the angle.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus in view of Tambini and further in view of Stanis (US 5,095,746).

Together Neuhaus and Tambini teach all of the limitations of claim 6 except the limitation that the angle selector is a potentiometer.

Stanis teaches using a potentiometer for entering a maximum angle (column 3, lines 56-59).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Neuhaus and Tambini with the teachings of Stanis to use a potentiometer as an angle selector. The motivation for making this combination would be to implement an accurate method for selecting the angle.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus in view of Tambini and further in view of Stanis and Suzuki et al. (US 4,308,779).

Together Neuhaus and Tambini teach all of the limitations of claim 7 except the limitation that the angle selector is a resistance ladder.

Stanis teaches that a potentiometer can be used as an angle selector (column 3, lines 56-59). Suzuki et al. teaches that a potentiometer can be in the form of a resistance ladder (column 15, lines 64-64).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Neuhaus and Tambini with the teachings of Stanis and Suzuki et al. to use a resistance ladder as an angle selector. The motivation for making this combination would be to implement an accurate method for selecting the angle. The motivation for making this combination would be to implement an accurate method for selecting the angle.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus in view of Tambini and further in view of Chastel et al. (US 5,571,971).

Together Neuhaus and Tambini teach all the limitations of claim 8 except the limitation that the processor is a microcontroller.

Chastel et al. teaches using a microcontroller as a processor to perform calculations (column 9, lines 48-49).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Neuhaus and Tambini with the teachings of Chastel et al. to use a microcontroller as a processor. A microcontroller can be used to make calculations quickly and so using a microcontroller would expedite the process.

Allowable Subject Matter

7. Claims 12-24 are allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 12 and 16 is the inclusion of the limitation of measuring the speed and direction of the angle of rotation applied and that the housing is configured to be located between the tool and the fastener such that the shaft is directly connected to an end of the tool and the fastener. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5-8, and 10-25 have been considered but are moot in view of the new ground(s) of rejection.

Although new references have been cited to overcome the claims, it should be noted that, in the response, applicant argues that the claims explicitly state that the housing is external to the tool and not incorporated or built into the tool. However, the claims do not include the words "external" or "separate from," for example. Rather, the claims use the words "directly connected." In order to more fully explain the claimed invention, it is recommended that claim language be added to more particularly point out that the housing is external to the tool and therefore is a separate entity that is not connected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meagan S. Walling whose telephone number is (571) 272-2283. The examiner can normally be reached on Monday through Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msw

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